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**What is claimed is:**

1. A data traffic policer comprising:
  - a classifier for separating a packet stream in accordance with class;
  - a first bucket for a first traffic class representing a first transmission rate and a first burst capacity; and
  - a second bucket for a second traffic class representing a second transmission rate and a second burst capacity, the second bucket being nested within the first bucket thereby being subordinate to the rate and capacity of the first bucket, with the rate of the second bucket being disabled when a fill condition exists in the first bucket.
2. A data traffic policer as claimed in claim 1 wherein the bucket is a leaky bucket.
3. A data traffic policer as claimed in claim 2 wherein traffic class is discard based.
4. A data traffic policer as claimed in claim 2 wherein traffic class is emission based.
5. A data traffic policer as claimed in claim 2 wherein traffic class is discard and emission based.
6. A data traffic policer as claimed in claim 1 wherein the bucket is a token bucket.
7. A data traffic policer as claimed in claim 6 wherein traffic class is discard based.
8. A data traffic policer as claimed in claim 6 wherein the traffic class is emission based.

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9. A data traffic policer as claimed in claim 6 wherein traffic class is discard and emission based.
10. A data traffic policer as claimed in claim 1 wherein the second bucket for a second traffic class includes a plurality of buckets for a corresponding plurality of traffic classes.
11. A data traffic policer as claimed in claim 10 wherein each bucket of the plurality of buckets includes a corresponding capacity.
12. A data traffic policer as claimed in claim 11 wherein each bucket of the plurality of buckets includes a corresponding rate.
13. A data traffic policer as claimed in claim 10 wherein the rate comprises a weight.
14. A method of data traffic policing comprising the steps of:
- separating a packet stream in accordance with class;
- representing a first traffic class as a first transmission rate and a first burst capacity; and
- representing a second traffic class as a second transmission rate and a second burst capacity being subordinate to the rate and capacity of the first traffic class, with the rate of the second traffic class being disabled when a fill condition exists for the first traffic class.
15. A method as claimed in claim 14 wherein the steps of representing are as leaky buckets.
16. A method as claimed in claim 15 wherein traffic class is discard based.
17. A method as claimed in claim 15 wherein traffic class is emission based.
18. A method as claimed in claim 15 wherein traffic is discard and emission based.

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19. A method as claimed in claim 14 wherein the steps of representing are as token buckets.
20. A method as claimed in claim 19 wherein traffic class is discard based.
21. A method as claimed in claim 19 wherein traffic class is emission based.
- 5 22. A method as claimed in claim 19 wherein traffic is discard and emission based.
23. A method as claimed in claim 14 wherein the step of representing a second traffic class includes representing a plurality of traffic classes.
24. A method as claimed in claim 23 wherein each bucket of the plurality of  
10 buckets includes a corresponding capacity.
25. A method as claimed in claim 23 wherein each bucket of the plurality of buckets includes a corresponding rate.
26. A method as claimed in claim 25 wherein the rate comprises a weight.